Attorney Docket No.: KAN-001-B

## What is claimed is:

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1. A topical composition comprising a polyunsaturated fatty acid fraction extracted from *Nigella sativa* L. seeds and a pharmaceutically acceptable carrier.

- 5 2. The topical composition of claim 1, wherein said composition is formulated as an ointment, cream, gel, powder, balm, lotion, liquid spray or aerosol or as the active ingredient of a transdermal patch.
  - 3. The topical composition of claim 1, wherein the polyunsaturated fatty acid fraction is present in an amount ranging from about 1 to about 33% by weight based on 100% by weight of the total composition.
  - 4. The topical composition of claim 1, wherein the polyunsaturated fatty acid fraction is free of *Nigella sativa* L. saturated fatty acids, sterols, volatile oils, and glyceryl esters.
  - 5. The topical composition of claim 4, wherein the polyunsaturated fatty acid fraction consists essentially of polyunsaturated fatty acids.
  - 6. The topical composition of claim 5, wherein the polyunsaturated fatty acid fraction comprises octadecadienoic acid and octadecenoic acid.
  - 7. The topical composition of claim 6, wherein the octadecadienoic acid is present in the polyunsaturated fatty acid fraction in an amount ranging from about 60.7 to about 72.6% by weight, and the octadecenoic acid is present in the polyunsaturated fatty acid fraction in an amount ranging from about 23.8 to about 29.7% by weight.
  - 8. A method of treating an anal fissure or hemorrhoid in a patient in need thereof comprising topically administering an effective amount of the composition of claim 1.
  - 9. A method of treating or preventing a skin condition in a patient in need thereof comprising topically administering an effective amount of the composition of claim 1.
  - 10. The method of claim 9, wherein the topical composition has skin moisturizing, revitalizing, and analgesic effects.

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- 11. The method of claim 9, wherein the skin condition is selected from the group consisting of psoriasis, eczema, dermatitis, dry, scaly, itchy or flaky skin, diaper rash, athlete's foot, jock itch, scalp irritations, and dermal infections.
- 12. A method of treating or preventing inflammation, pain of an allergic reaction in a patient in need thereof comprising administering an effective amount of the composition of claim 1.

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- 13. A method of treating or preventing an infection in a patient in need thereof comprising topically administering an effective amount of a composition comprising a polyunsaturated fatty acid fraction extracted from *Nigella sativa* L. seeds and a pharmaceutically acceptable carrier.
- 14. The method of claim 13, wherein the active agent is free of saturated fatty acids, sterols, volatile oils, glyceryl esters.
- 15. The method of claim 14, wherein the polyunsaturated fatty acid fraction consists essentially of polyunsaturated fatty acids.
- 16. The method of claim 13, wherein the polyunsaturated fatty acid fraction comprises octadecadienoic acid and octadecenoic acid, further wherein the octadecadienoic acid is present in the polyunsaturated fatty acid fraction in an amount ranging from about 60.7 to about 72.6% by weight, and the octadecenoic acid is present in the polyunsaturated fatty acid fraction in an amount ranging from about 23.8 to about 29.7% by weight.
  - 17. The method of claim 13, wherein the polyunsaturated fatty acid fraction is present in an amount ranging from about 1 to about 33% by weight based on 100 parts by weight of the total composition.
  - 18. The method of claim 17, wherein the polyunsaturated fatty acid fraction is present in an amount ranging from about 15 to about 28% by weight based on 100 parts by weight of the total composition.
  - 19. The method of claim 18, wherein the polyunsaturated fatty acid fraction is present in an amount ranging from about 18 to about 25% by weight based on 100 parts by weight of the total composition.

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- 20. The method of claim 19, wherein the polyunsaturated fatty acid fraction is present in an amount ranging from about 20 to about 23% by weight based on 100 parts by weight of the total composition.
- 21. The method of claim 13, wherein the composition further comprises at least one compound selected from the group consisting of an emulsifying agent, a stabilizing agent and a preservative.
- 22. The method of claim 13, wherein said infection is a bacterial infection.
- 23. The method of claim 22, wherein the bacterial infection is caused by a bacteria from the genus *Staphylococcus*, *Corynebacterium*, *Streptococcus*, *Salmonella*, . . *Escherichia*, *Pseudomonas*, or *Klebsiella*.
- 24. The method of claim 13, wherein said infection is a fungal infection.
- 25. The method of claim 24, wherein the fungal infection is caused by a fungus from the genus *Candida*, *Microsporum*, *Aspergillus*, *Penicillium*, *Tinea*, *Monilia*, *Cladosporium*, *Phialophora*, or *Paracoccidioides*.

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